Michael P. Angarone, DO

Born: November 30, 1971: Maywood, IL Citizenship: United States 2110 Clinton Ave Berwyn, IL 60402 Home: 708-484-8649

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Division of Infectious Diseases Northwestern Memorial Hospital 645 North Michigan Ave, Suite 900 Chicago, IL 60611

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Education

June 1995 University of Illinois- Urbana/ Champaign, B.S.

Microbiology

June 2002 Chicago College of Osteopathic Medicine, D.O.

Medicine

Graduate Medical Education

July 2002-June 2005 Loyola University Medical Center,

Internal Medicine Internship and Residency

July 2005-June 2006 Loyola University Medical Center,

Internal Medicine Chief Resident

July 2006-July 2009 Northwestern Memorial Hospital

Infectious Diseases Fellowship

Postdoctoral Research Training

July 2008-July 2009 Northwestern University, Research Assistant

Oncology/Immunology

Board Certification and Medical Licensure

2008-2011 Licensed Physician, State of Illinois, license #036-114094

2015-2025 Diplomat, American Board of Internal Medicine, #264970

Exhibit B

2008-2018 Diplomat in Infectious Disease, American Board of Internal

Medicine, #264970

Military Service

July 1988 - July 1998 United States Army Reserve, Medical Laboratory

Technician

November 1990-May 1991 Operation Desert Storm, Saudi Arabian Theatre

June 1993 & June 1994 United States Army Medical Research Institute of

Infectious Diseases, Research Technician Biologic

Weapons Division.

Employment History

June 1995- Nov 1996 Abbott Laboratories, Viral Reagent Development

Nov 1996-Aug1998 Abbott Laboratories, Antibody and Cardiac Assay

Development

Faculty Appointments

2009 - 2012 Clinical Instructor, Feinberg School of Medicine,

Northwestern University, Department of Medicine,

Division of Infectious Disease

2012- Present Assistant Professor, Feinberg School of Medicine,

Northwestern University, Department of Medicine,

Division of Infectious Disease

2014- Present Assistant Professor, Feinberg School of Medicine,

Northwestern University, Department of Medical

Education, Division of Medical Education

Hospital Appointments

2005-2009 Emergency Room Physician, Hines Veterans

Administration Hospital, Hines IL

2009 - Present Attending Physician, Northwestern Memorial Hospital,

Chicago IL

Administrative Appointments

August 2009 – April 2010	Co-Director of Emergency Influenza Clinic, Northwestern Memorial Hospital
2009 - 2012	Associate Clerkship Director Junior Subspecialty Medicine (M3). Northwestern University Feinberg School of Medicine
2009 - Present	Infectious Disease Clinic Quality Committee Northwestern Memorial Hospital, Infectious Disease and HIV/AIDS Clinic
2010 - 2012	Curriculum Renewal Committee; Northwestern University Feinberg School of Medicine
2011-Present	Inpatient Scheduler for the Department of Medicine
2011-Present	Guidelines Panel Member; <i>National Comprehensive Cancer Network</i> ; Prevention and Treatment of Cancer Related Infections
2012 - Present	Director Infectious Disease Senior Student (M4) Elective. Northwestern University Feinberg School of Medicine
2012-Present	Clerkship Director Senior Medicine Sub-internship. Northwestern University Feinberg School of Medicine.
2011- Present	Core Faculty Member; Internal Medicine Residency Program, Northwestern University Feinberg School of Medicine, Department of Internal Medicine
2013-Present	Intern Selection Committee, Internal Medicine Residency Program, Northwestern University Feinberg School of Medicine, Department of Internal Medicine
Awards and Honors	
2005-2006	Chief Resident, LUMC Internal Medicine
2005	Robert Carlson Award for Medical Excellence
2008	Design Industry Foundation Fighting AIDS Fellow award
2008	Distinguished Teaching Award, Northwestern University Feinberg School of Medicine
2009	Teaching Award, Department of Medicine, Northwestern

	University Feinberg School of Medicine
2010	Attending Teaching Award, Department of Medicine, Northwestern University Feinberg School of Medicine
2010	Attending Teaching Award, Division of Infectious Disease, Northwestern University Feinberg School of Medicine
2013	Attending Teaching Award, Division of Infectious Disease, Northwestern University Feinberg School of Medicine
2014	Roy Patterson Teaching Award: Outstanding Teacher Award, Internal Medicine Residents, Northwestern University Feinberg School of Medicine
2015	Attending Teaching Award, Department of Medicine, Northwestern University Feinberg School of Medicine
2016	Roy Patterson Teaching Award: Outstanding Teacher Award, Internal Medicine Residents, Northwestern University Feinberg School of Medicine
2017	Attending Teaching Award, Division of Infectious Disease, Northwestern University Feinberg School of Medicine
2017	John X. Thomas, Jr Best Teachers of Feinberg Award, Northwestern University, Feinberg School of Medicine

Professional Society Memberships

2008-present	American College of Physicians, Member
2010-present	Infectious Disease Society of America, Member
2013-present	Alliance for Academic Internal medicine/Clerkship Directors in Internal Medicine
Teaching	
August 2005-May 2006	Introduction to Medicine. Instructor for second year medical students at Stritch School of Medicine.
Sept. 2005-Aug. 2006	Mechanisms of Disease. Instructor for second year medical students at Stritch School of Medicine.

July 2006- Present	Direct supervision and ward teaching of residents and medical students rotating through the infectious disease consultation services at Northwestern Memorial Hospital.
July 2007 & July 2008	Neutropenic Fever. Core curriculum lecture for Northwestern Memorial Hospital internal medicine house staff.
August 2007-July 2008	Infections in the Returning Traveler. Infectious Disease Core Curriculum lecture for rotating medical students and residents rotating through the infectious disease consultation services at Northwestern Memorial Hospital.
August 2007-Present	Sexually Transmitted Infections. Infectious Disease Core Curriculum lecture for rotating medical students and residents rotating through the ID service at Northwestern Memorial Hospital.
March 2008-May 2008	Problem Based Learning. Instructor for first year medical students at the Feinberg School of Medicine. Topics included psychiatry, neurology, and dermatology.
Sept. 2008-Nov.2008	Problem Based Learning. Instructor for second year medical students at the Feinberg School of Medicine. Topics included cardiology, nephrology, and microbiology.
Sept. 2009-Oct.2009	Problem Based Learning. Instructor for second year medical students at the Feinberg School of Medicine. Topics included immunology and microbiology.
Aug 2009—2013	Specialty Case conference for 3 rd year medical students. Lead 3 rd year medical students during their medicine subspecialty rotations.
Sept. 2010-Oct.2010	Problem Based Learning. Instructor for second year medical students at the Feinberg School of Medicine. Topics included immunology and microbiology.
Sept. 2011-Oct 2011	Problem Based Learning. Instructor for second year medical students at the Feinberg School of Medicine. Topics included immunology and microbiology.
Sept. 2012-Oct 2011	Problem Based Learning. Instructor for second year

medical students at the Feinberg School of Medicine. Topics included immunology and microbiology.

Scholarly Bibliography

- a. Original, Peer-Reviewed Research Articles
 - 1. Watson WA, Rhodes NJ, Echenique IA, **Angarone** MP, Scheetz MH. Resolution of acyclovir-associated neurotoxicity with the aid of improved clearance estimates using a Bayesian approach: A case report and review of the literature. J Clin Pharm Ther. 2017 Jun;42(3):350-355. doi: 10.1111/jcpt.12520. Epub 2017 Mar 29. PMID: 28370067
 - 2. Trinh SA, Echenique IA, Penugonda S, **Angarone** MP. Optimal strategies for the diagnosis of community-onset diarrhea in solid organ transplant recipients: Less is more. Transpl Infect Dis. 2017 Apr;19(2). doi: 10.1111/tid.12673. Epub 2017 Mar 16. PMID: 28170133
 - 3. Echenique IA, **Angarone** MP, Gordon RA, Rich J, Anderson AS, McGee EC, Abicht TO, Kang J, Stosor V. Invasive fungal infection after heart transplantation: A 7-year, single-center experience. Transpl Infect Dis. 2017 Feb;19(1). doi: 10.1111/tid.12650. PMID: 27943503
 - 4. Baden LR, Swaminathan S, Angarone M, Blouin G, Camins BC, Casper C, Cooper B, Dubberke ER, Engemann AM, Freifeld AG, Greene JN, Ito JI, Kaul DR, Lustberg ME, Montoya JG, Rolston K, Satyanarayana G, Segal B, Seo SK, Shoham S, Taplitz R, Topal J, Wilson JW, Hoffmann KG, Smith C. Prevention and Treatment of Cancer-Related Infections, Version 2.2016, NCCN Clinical Practice Guidelines in Oncology. J Natl Compr Canc Netw. 2016 Jul;14(7):882-913. PMID: 27407129
 - 5. Young PG, Rubin J, **Angarone** M, Flaherty J, Penugonda S, Stosor V, Ison MG. Ganciclovir-resistant cytomegalovirus infection in solid organ transplant recipients: a single-center retrospective cohort study. Transpl Infect Dis. 2016 Jun;18(3):390-5. doi: 10.1111/tid.12537. Epub 2016 Jun 9. PMID: 27037651
 - 6. Echenique IA, Penugonda S, Stosor V, Ison MG, **Angarone MP**. Diagnostic Yields in Solid Organ Transplant Recipients Admitted with Diarrhea. Clin Infect Dis. 2015 Mar 1;60(5):729-37. doi: 10.1093/cid/ciu880. Epub 2014 Nov 3. PMID: 25371488
 - 7. Echenique IA, **Angarone** MP, Bolon MK. A bridge too far.. Transpl Infect Dis. 2014 Oct;16(5):866-7. doi: 10.1111/tid.12258. Epub 2014 Jul 1. No

abstract available. PMID: 24981019

- 8. Gounaris E, Martin J, Ishihara Y, Khan MW, Lee G, Sinh P, Chen EZ, **Angarone M**, Weissleder R, Khazaie K, Barrett TA. Fluorescence endoscopy of cathepsin activity discriminates dysplasia from colitis. Inflamm Bowel Dis. 2013 Jun;19(7):1339-45. doi: 10.1097/MIB.0b013e318281f3f8. PMID: 23591598
- 9. Theodoropoulos N, Wang E, Penugonda S, Ladner DP, Stosor V, Leventhal J, Friedewald J, **Angarone M**, Ison MG. BK Virus Replication and Nephropathy After Alemtuzumab-Induced Kidney transplantation. Am J Transplant. 2013 Jan;13(1):197-206. doi: 10.1111/j.1600-6143.2012.04314.x. Epub 2012 Nov 8. PMID: 23136975
- b. Editorials, Reviews, Chapters, Books, Commentaries
 - 1. Santoiemma PP, Dinwiddie SH, **Angarone MP.** Infectious disease complications in people who inject drugs. Jan 1 2017 Psychiatric Annals 2017 Jan:47(1);33-37.
 - 2. **Angarone MP**, Sheahan A, Kamboj M. Norovirus in Transplantation. Curr Infect Dis Rep. 2016 Jun:18(6):17. PMID:27115700
 - 3. Smith L, **Angarone M**. Sexually Transmitted Disease. Urol Clin North Am. 2015 Nov;42(4):507-18. PMID: 26475947
 - 4. **Angarone M**, Ison MG. Diarrhea in solid organ transplant recipients. Curr Opin Infect Dis 2015 Aug;28(4):308-16. PMID: 26098506
 - Angarone M. Fungal Infections in Cancer Patients. Infectious Complications in Cancer Patients, Editor Valentina Stosor, Teresa R. Zembower. Springer, 2014
 - 6. Flaherty J, **Angarone M**. *Acute Diarrhea and Vomiting*. Problem-based Approach to Gastroenterology and Hepatology. Editor John N. Plevris, Colin W. Howden. Wiley-Blackwell, 2012.
 - 7. **Angarone, M.** Epidemiology and Prevention of Viral Infections in Patients with Hematologic Malignancies. Infectious Disorders-Drug Targets, 2011 Feb;11(1):27-33. [Invited] PMID: 21303338
 - 8. **Angarone M**, Ison MG. Prevention and early treatment of opportunistic viral infections in patients with leukemia and allogeneic stem cell transplantation recipients. J Natl Compr Canc Netw. 2008;6(2):191-201. PMID: 18319051

- c. Case reports, Technical Notes, Letters
 - 1. Purpureocillium lilacinum tattoo-related skin infection in a kidney transplant recipient. Trinh SA, **Angarone** MP. Transpl Infect Dis. 2017 Jun;19(3). doi: 10.1111/tid.12689. Epub 2017 Apr 13. PMID: 28273390
 - 2. Theodoropoulos N, **Angarone M**. Photo quiz. Lip lesion in a solid organ transplant recipient. Clin Infect Dis. 2012 May;54(9):1332, 1373-4. doi: 10.1093/cid/cir878. No abstract available. PMID: 22492319
 - 3. **Angarone M**, Reddy P, Berggruen S, Noskin G. Dyspnea and Fatigue. Infectious Diseases in Clinical Practice. May 2007;15(3):178-182.
- d. Proceedings and Non-refereed Papers

None

e. Software, World Wide Web-based Publications, Exhibits, Audiovisual or Other Teaching Material

None

f. Patents

None

- g. Abstracts
 - 1. **Angarone M**, Stosor V, Zembower T, Scarsi K, Burt RK. Infections (INFs) after autologous hematopoietic stem cell transplantation (HSCT) for refractory systemic lupus erythematosus (SLE). *46th IDSA-48th ICAAC* Washington, D.C. October 26, 2008. [Poster K-1398]
 - 2. Stosor V, Zembower T, **Angarone M**, McGee E, Scarsi K, Grady K, Cotts W, Ison M. Infections (INF) after heart transplantation (HT) with basiliximab induction: a single center experience. The International Society for Heart and Lung Transplantation 29th Annual Meeting. Paris, France. April 22, 2009.

Presentations

July 2009

Neutropenic Fever. Internal Medicine Resident Core Curriculum. Northwestern University, Feinberg School of Medicine.

May 25, 2010	HIV Infection. Internal Medicine Society, Medical Student Association. Northwestern University Feinberg School of Medicine.
August 9, 2010	Neutropenic Fever. Internal Medicine Resident Core Curriculum. Northwestern University, Feinberg School of Medicine.
December 16, 2010	Update on Sexually Transmitted Infections. Department of Urology, Northwestern University, Feinberg School of Medicine.
December 22, 2010	Update on Influenza: Information for Internal Medicine Residents. Department of Medicine, Internal Medicine Resident Lecture Series. Northwestern University, Feinberg School of Medicine.
January 19, 2011	Primary Care in HIV: Cardiovascular Disease and Non-AIDS Related Malignancies. 47 th Annual Year in Internal Medicine. Northwestern University, Feinberg School of Medicine.
January 27, 2011	Firm Conference. Department of Medicine. Northwestern University, Feinberg School of Medicine.
February 24, 2011	The 100 Day Cough: Bordetella pertussis Infection in Adults. Medical Grand Rounds, St. Catherine Hospital, 4321 Fir St, East Chicago, Indiana.
March 30, 2011	Primary Care of the HIV Patient. CME Conference. Northwestern memorial Hospital, Northwestern Memorial Faculty Foundation.
April 27, 2011	The 100 Day Cough: Bordetella pertussis Infection in Adults. Medical Grand Rounds, St. Mary Medical Center, 1500 S. Lake Park, Hobart, Indiana.
May 27, 2011	Primary Care of the HIV Patient. CME Conference. Northwestern Memorial Hospital, Northwestern Memorial Physician's Group
July 12, 2011	Diagnosis and Management of Opportunistic Infections in Individuals infected with HIV. Advanced ART Physicians Training. Dar es Salaam, Tanzania

July 13, 2011	AIDS Related malignancies, Detection and Management. Advanced ART Physicians Training. Dar es Salaam, Tanzania
September 23, 2011	Tick and Mosquito Borne Illnesses: A Primer for the Primary Care Physician. 64 th Annual Ward E. Perrin Clinical Refresher Course. Midwestern University.
September 28, 2012	Overview of Antibiotics. Medical Student Internal Medicine Society, Northwestern University Feinberg School of Medicine.
October 11, 2012	ID Update: West Nile Virus and Recurrent C. difficile Infection. 8 th Annual Midwest Hospital Medicine Conference, Northwestern Memorial Hospital
January 18, 2013	Fungal Infections in Hemetologic Stem Cell Transplant Recipients. Current Topics in HSCT Series. Northwestern University Feinberg School of Medicine
September 28, 2012	Overview of Antibiotics. Medical Student Internal Medicine Society, Northwestern University Feinberg School of Medicine.
October 11, 2012	ID Update: West Nile Virus and Recurrent C. difficile Infection. 8 th Annual Midwest Hospital Medicine Conference, Northwestern Memorial Hospital
January 18, 2013	Fungal Infections in Hemetologic Stem Cell Transplant Recipients. Current Topics in HSCT Series. Northwestern University Feinberg School of Medicine
March 27, 2013	Overview of Adult Vaccinations and the understanding the 2013 ACIP Adult Vaccine Guidelines. Medical Grand Rounds, St. Mary Medical Center, 1500 S. Lake Park, Hobart, Indiana
May 1, 2013	Global Impact f Diarrheal Illness. Speaker for Northwestern University Department of Global Health
May 10, 2013	Viral Infections in Hemetologic Stem Cell Transplant Recipients. Current Topics in HSCT Series. Northwestern University Feinberg School of Medicine
July 23, 2013	Diagnosis and Management of Opportunistic Infections in

	Individuals infected with HIV. Advanced ART Physicians Training. Dar es Salaam, Tanzania
July 24, 2013	AIDS Related malignancies, Detection and Management. Advanced ART Physicians Training. Dar es Salaam, Tanzania
August 28, 2013	Recurrent Clostridium difficile Infection: Antibacterials and Beyond. Medical Grand Rounds, Presence St. Joe's Hospital, 2913 N. Commonwealth Av, Chicago IL
Jan 15, 2014	Update on Screening Tests in Infectious Disease: Universial HIV Testing, HCV testing in "Baby Boomers: and Tuberculosis Screening 50 th Annual Year in Internal Medicine. Northwestern University, Feinberg School of Medicine.
Jan 21, 2014	Management of Recurrent Clostridium difficile Infection. Medical Grand Rounds, Presence St. Francis's Hospital, 355 Ridge Av, Evanston IL
Jan 15, 2014	Update on Screening Tests in Infectious Disease: Universial HIV Testing, HCV testing in "Baby Boomers: and Tuberculosis Screening. Medical Grand Round, Western Michigan University School of Medicine, Kalamazoo, MI.
Sept 20, 2015	Epidemiology of diarrhea in transplant recipients. ICAAC 2015. San Diego, CA. Presenter and Convener.
Nov 16, 2015	Lunch and Learn: Top 5 Things You Need to Know About Influenza. Northwestern Medicine Lunch and Learn CME. Chicago, IL.
Feb 22, 2016	Lunch and Learn: Zika Virus: What the Primary Provider Needs to Know. Northwestern Medicine Lunch and Learn CME. Chicago, IL.
Mar 31, 2016	Vector Borne Infections. Grand Rounds, Northwestern Medicine Lake Forrest hospital. Lake Forrest, IL
Sept 30, 2016	Antibiotic Stewardship in Clinical Practice. Grand Rounds. Olympia Fields Hospital. Olympia Fields, IL.
Oct 25, 2016	An Update on Zika Virus. Nursing Grand Rounds.

	Northwestern Medicine. Chicago, IL.
Dec 16, 2016	Updates in HIV Infection. 12 th Annual Midwestern hospital Medicine Conference. Northwestern University Feinberg School of Medicine. Chicago, IL
Sept 15, 2017	Update on Syphilis Testing, Northwestern Medicine Hospitalist Grand Rounds, Northwestern Medicine, Chicago, IL
Oct 12, 2017	Management of Antibiotic Resistant Infections, Pri-Med 2017 Midwest Annual Conference, Rosemont IL
Oct 13, 2017	Ask the Expert: Infectious Diseases, Pri-Med 2017 Midwest Annual Conference, Rosemont IL
Oct 20, 2017	Interactive Infectious Disease Cases, 13 th Annual Midwestern hospital Medicine Conference. Northwestern University Feinberg School of Medicine. Chicago, IL